

Appl. No. 09/919,741  
Amdt. dated November 14, 2003  
Reply to Office action dated July 15, 2003

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1-22 (Cancelled)

23. (Original) A method comprising:

automatically controlling an environment of an inhalant chamber; and  
automatically controlling a concentration of an inhalant in the inhalant

chamber.

24. (Previously Presented) The method of Claim 23, wherein said  
automatically controlling an environment of an inhalant chamber comprises:  
maintaining an environmental factor via feedback control, wherein the  
environmental factor includes a pressure of the inhalant chamber.

25-26 (Cancelled)

27. (Original) The method of Claim 23, wherein said automatically controlling  
a concentration of an inhalant in the inhalant chamber comprises:  
dispersing either an organic or inorganic substance via electronic control  
of one or more inhalant dissemination devices.

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28-31 (Cancelled)

32. (Original) The method of Claim 23 further comprising:

displaying near real time measurement data related to an animal in the inhalant chamber.

33. (Previously Presented) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying animal-related respiration data.

34. (Previously Presented) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying a pressure of the inhalant chamber.

35. (Previously Presented) A system comprising:

means for automatically controlling an environment of an inhalant chamber; and

means for automatically controlling a concentration of an inhalant in the inhalant chamber.

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36. (Previously Presented) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:  
maintaining an environmental factor via feedback control, wherein the environmental factor includes a pressure of the inhalant chamber.

37-38 (Cancelled)

39. (Original) The system of Claim 35, wherein said means for automatically controlling a concentration of an inhalant in the inhalant chamber comprises:  
means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices.

40-43 (Cancelled)

44. (Original) The system of Claim 35 further comprising:  
means for displaying near real time measurement data related to an animal in the inhalant chamber.

45. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:  
means for displaying animal-related respiration data.

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46. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying a pressure of the inhalant chamber.

47-65 (Withdrawn)

66. (Previously Presented) The method of Claim 24, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor is a pressure of the inhalant chamber comprises:

controlling the environmental factor via monitoring a pressure sensor of the inhalant chamber.

67. (Previously Presented) The method of Claim 66, wherein said controlling the environmental factor via monitoring a pressure sensor of the inhalant chamber comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the pressure sensor and adjusting a pressure driver.

68. (Previously Presented) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber.

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69. (Previously Presented) The method of Claim 68, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber comprises:

controlling the environmental factor via monitoring a temperature sensor.

70. (Previously Presented) The method of Claim 69, wherein said controlling the environmental factor via monitoring a temperature sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the temperature sensor and adjusting a temperature driver.

71. (Previously Presented) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber.

72. (Previously Presented) The method of Claim 71, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber comprises:

controlling the environmental factor via monitoring a humidity sensor.

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73. (Previously Presented) The method of Claim 72, wherein said controlling the environmental factor via monitoring a humidity sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the humidity sensor and adjusting a humidity driver.

74. (Previously Presented) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber.

75. (Previously Presented) The method of Claim 74, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber comprises:

controlling the environmental factor via monitoring an input airflow sensor.

76. (Previously Presented) The method of Claim 75, wherein said controlling the environmental factor via monitoring an input airflow sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the input airflow sensor and adjusting an input airflow driver.

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77. (Previously Presented) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes an exhaust airflow out of the inhalant chamber.

78. (Previously Presented) The method of Claim 77, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow out of the inhalant chamber comprises:

controlling the environmental factor via monitoring an exhaust output airflow sensor.

79. (Previously Presented) The method of Claim 78, wherein said controlling the environmental factor via monitoring an exhaust output airflow sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the output airflow sensor and adjusting an exhaust output airflow driver.

80. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a wet aerosol form.

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81. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a aerosol form.

82. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a gaseous substance form.

83. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a mist form.

84. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a fog form.



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85. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a fume form.

86. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having an airborne substance form.

87. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a chamber pressure monitor.

88. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from an inhalant-concentration sensor.

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89. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

90. (Previously Presented) The method of Claim 23, wherein said automatically controlling a concentration of an inhalant in the inhalant chamber comprises:

controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant.

91. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an inhalant concentration sensor.

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92. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

93. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an input airflow sensor.

94. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an output airflow sensor.

95. (Previously Presented) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying animal-related dosimetry data.

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96. (Previously Presented) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying a temperature of the inhalant chamber.

97. (Previously Presented) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying a humidity of the inhalant chamber.

98. (Previously Presented) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying an airflow into the inhalant chamber.

99. (Previously Presented) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying an airflow out of the inhalant chamber.

100. (Previously Presented) The system of Claim 36, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor is a pressure of the inhalant chamber comprises:

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means for controlling the environmental factor via monitoring a pressure sensor of the inhalant chamber.

101. (Previously Presented) The system of Claim 100, wherein said means for controlling the environmental factor via monitoring a pressure sensor of the inhalant chamber comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the pressure sensor and adjusting a pressure driver.

102. (Previously Presented) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber.

103. (Previously Presented) The system of Claim 102, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber comprises:

means for controlling the environmental factor via monitoring a temperature sensor.

104. (Previously Presented) The system of Claim 103, wherein said means for controlling the environmental factor via monitoring a temperature sensor comprises:

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means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the temperature sensor and adjusting a temperature driver.

105. (Previously Presented) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber.

106. (Previously Presented) The system of Claim 105, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber comprises:

means for controlling the environmental factor via monitoring a humidity sensor.

107. (Previously Presented) The system of Claim 106, wherein said means for controlling the environmental factor via monitoring a humidity sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the humidity sensor and adjusting a humidity driver.

108. (Previously Presented) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

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means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber.

109. (Previously Presented) The system of Claim 108, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber comprises:

means for controlling the environmental factor via monitoring an input airflow sensor.

110. (Previously Presented) The system of Claim 109, wherein said means for controlling the environmental factor via monitoring an input airflow sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the input airflow sensor and adjusting an input airflow driver.

111. (Previously Presented) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an exhaust airflow out of the inhalant chamber.

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112. (Previously Presented) The system of Claim 111, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow out of the inhalant chamber comprises:

means for controlling the environmental factor via monitoring an exhaust output airflow sensor.

113. (Previously Presented) The system of Claim 112, wherein said means for controlling the environmental factor via monitoring an exhaust output airflow sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the output airflow sensor and adjusting an exhaust output airflow driver.

114. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a wet aerosol form.

115. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a dry aerosol form.



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116. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a gaseous substance form.

117. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a mist form.

118. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a fog form.

119. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a fume form.

120. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

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means for dispersing a substance having an airborne substance form.

121. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a chamber pressure monitor.

122. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from an inhalant-concentration sensor.

123. (Previously Presented) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

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124. (Previously Presented) The system of Claim 35; wherein said means for automatically controlling a concentration of an inhalant in the inhalant chamber comprises:

means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant.

125. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an inhalant concentration sensor.

126. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

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127. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an input airflow sensor.

128. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an output airflow sensor.

129. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying animal-related dosimetry data.

130. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying a temperature of the inhalant chamber.

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131. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying a humidity of the inhalant chamber.

132. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying an airflow into the inhalant chamber.

133. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying an airflow out of the inhalant chamber.

134. (New) A method comprising:

automatically controlling an environment of an inhalant chamber; and

automatically controlling a concentration of an inhalant in the inhalant chamber;

wherein at least a portion of an animal extends into the chamber.

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135. (New) A system comprising:  
means for automatically controlling an environment of an inhalant chamber; and  
means for automatically controlling a concentration of an inhalant in the  
inhalation chamber;  
wherein at least a portion of an animal extends into the chamber.

136. (New) A method comprising:  
automatically controlling an environment of an inhalant chamber; and  
automatically controlling a concentration of an inhalant in the inhalant chamber;  
wherein gaseous input and gaseous egress from the inhalant chamber are  
controlled.

B2 137. (New) A system comprising:  
means for automatically controlling an environment of an inhalant chamber; and  
means for automatically controlling a concentration of an inhalant in the  
inhalation chamber;  
wherein gaseous input and gaseous egress from the inhalant chamber are  
controlled.